DRAFT

Salinas Fecal Coliform Project Plan

Listed Waterbodies: **Salinas River**
(Includes: Alisal Creek, Atascadero Creek, Gabilan Creek, Old Salinas River Estuary, Salinas Reclamation Canal, Salinas River (lower), San Lorenzo Creek, Tembladero Slough)

Listed Condition: **Fecal coliform**

Watershed Location: Monterey and San Luis Obispo Counties
Year added to California's CWA Section 303(d) List of Impaired Waters - 2002

Preliminary Schedule for **Salinas – Fecal coliform** Impairment Investigation project

Task	Completion Date	Notes
Project Definition	June 2003	Complete
Project Plan	January 2004	*Active - rewritten August 2004 to account for lack of funding that was originally anticipated in this project*
Data Collection and Analysis	September 2005	* contact staff to submit data
Preliminary Project Report	February 2006	
Recommendation for Regulatory Action (if needed)	June 2011	

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Problem Background:

Basis for listing: Central Coast Ambient Monitoring Program (CCAMP) took samples between 1999 and 2000 (see CCAMP website for complete data set). All segments referenced on the 303(d) list violated water quality objectives for Contact Recreation.

Current information: The listing information is fairly current (1999-2000). It does not appear that water quality has improved since 1999/2000.

What next: It is clear from the data that led to the listing of the waterbodies that there are elevated levels of fecal coliform present and, therefore, a TMDL needs to be developed. Levels of fecal coliform are consistently orders of magnitude above the standard (fecal coliform Basin Plan standard for contact recreation). Most of these areas that have been sampled by CCAMP are irrigated agricultural lands. In this type of land use there is typically not a lot of wildlife, no human structures and no pets (there are some occasional exceptions to the rule with regards to pets as staff has observed dogs in nearby fields as well as dog feces on a head of lettuce). Originally, this seemed to be a very confusing subject. High levels of fecal coliform had been found in irrigated agriculture areas, but there didn't seem to be a source. However, after discussions with the County of Monterey and numerous site visits, it appears that the sources of fecal coliform may be originating from the upper watershed. What we may be seeing in the lower end of the creeks (where the majority of sampling has taken place), are the effects of the input of this material from the upper part of the creek. Regional Board staff has observed human fecal

material in the creeks and banks on numerous occasions while conducting site visits for other projects. Additionally, houses - presumably on septic systems - and grazing are typical landuses in the upper sections of the creek that *may be* potential contributors of fecal coliform.

Confirming on denying the theory that the elevated fecal coliform is originating in the upper sections of the watershed should be fairly easily confirmed by taking samples down the stretch of the creeks. This sampling can be performed using Colilert-18©, which is comparable to multiple tube fermentation.

Project Plan: Below is a brief overview of the three project steps that can currently be projected.

1. Project Data Collection and Analysis:

Who	Regional Board (RB) staff – Shanta Keeling
Action Steps & Schedule	**Develop Numeric Targets** • June - July 2004 - Numeric Targets will be Basin Plan Standards for REC-1 for bacteria for all areas listed with the possible exception of those waterbodies that have SHELL listed as a beneficial use (Tembladero Slough and Old Salinas River Estuary). o REC-1 – Fecal coliform concentrations, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200/100 mL nor shall more than ten percent of total samples during any 30-day period exceed 400/100 mL. • January 2005 - June 2005: Use UAA plan to outline the steps for performing a Use Attainability Analysis to see if Shellfishing actually exists in the waterbodies marked SHELL beneficial use. If no shellfishing exists, proceed with removing this beneficial use from the water body. Timeline for how long this will take is unknown. May decide at some point to separate Tembladero Slough and Old Salinas River Estuary from the whole Salinas plan in order to better address the slough and estuary separately. Use guidance provided in the Impaired Water's Guidance, Appendix C. Additionally, use information already gathered in the UAA plan for Santa Cruz Counties. **Develop Source Analysis** • July 2004 - August 2004: Draft a research project plan. • August 2004 - August 2004: Have staff/coworkers review plan. • August/September 2004 - September 2005: Take samples and analyze data. (May not need the entire year to collect samples but will estimate a full water year). Plan on taking at <u>least</u> monthly samples. We may determine that more than monthly sampling may be necessary. Because of the size of this watershed, it may be necessary to take 2-3 day trips a month in order to complete monthly sampling. • November 2005 - December 2005: Completion of sampling project. Prepare Data Collection and Analysis Report
Cost (PY & $)	*<u>Staff Resources</u>:* Fiscal Year 04-05 allocation = 0.7 (0.5 PY for Data Collection and Analysis and 0.2 PY for UAA plan). FY 05-06 = 0.2 (0.2 PY for Data Collection and Analysis). *<u>Contract Resources</u>:* *<u>Other</u>:*
Issues	• This watershed area is huge. • It should be noted that the Basin Plan and Ocean Plan are currently undergoing revisions that may change these numeric targets. Enterococcus may be a numeric target for the Slough and Estuary for REC-1, and *E. coli* may be the numeric target for the tributaries of the Slough and other freshwater waterbodies in the Salinas. Additionally, if it is determined that shellfishing is a viable beneficial use, fecal coliform may be used

	as a numeric target. • Howard Kolb is the staff person most knowledgeable about the current situation with the bacterial water quality standards in the Basin Plan and the Ocean Plan. Make sure to coordinate with him. • The amount of time spent on source analysis is highly variable depending on what is found.

2. Preliminary Project Report(s):

Who	Regional Board staff – project lead scientist (S. Keeling) Stakeholders (review draft reports & interact)
Action Steps & Schedule	January 2006 - February 2006 • Use data collection and analysis report to finish up a preliminary project report incorporating source tracking analysis. The preliminary project report will include problem statement, numeric targets and source analysis. September 2005 – ongoing • ***Prepare and Initiate Stakeholder Plan:*** Use the Monterey Bay Sanctuary Program to facilitate stakeholder outreach.
Cost (PY & $)	*Staff Resources:* FY 05-06: 0.2 PY for continued contract management and drafting the preliminary project report. *Contract Resources:* *Other:* see box 1.
Issues	*Stakeholder approach:* Regional Board staff person Amanda Bern is working with the Monterey Bay Sanctuary in terms of stakeholder outreach. All future stakeholder outreach should take place through this group. Coordinate with Amanda first.

Potential Future Activities (as needed)

Project Report:

Budget and Schedule Uncertainties:

Budget:
Short-term:
Long-term:

Schedule: None foreseen.

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